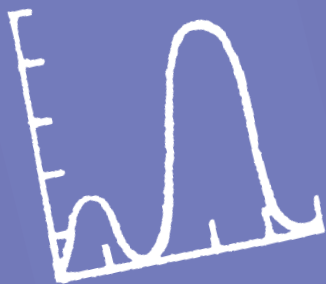


BIOMEDICAL  
RESEARCH TRAINING  
PROGRAM FOR  
UNDERREPRESENTED  
MINORITIES



# NATIONAL HEART, LUNG, AND BLOOD INSTITUTE

## BIOMEDICAL RESEARCH TRAINING PROGRAM FOR UNDERREPRESENTED MINORITIES

### INTRODUCTION

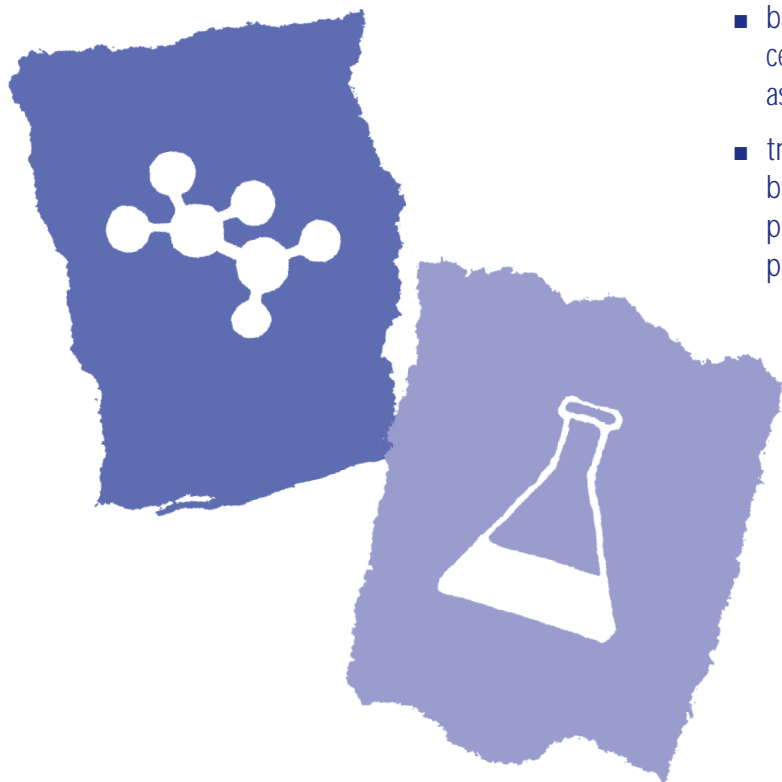
The National Heart, Lung, and Blood Institute (NHLBI) has established a Biomedical Research Training Program for Underrepresented Minorities (BRTMUM) that offers unparalleled opportunities for underrepresented minority undergraduate and graduate students to receive training in fundamental biomedical sciences and clinical research disciplines. The purpose of BRTMUM is to enhance career opportunities in biomedical and behavioral research, including clinical and laboratory medicine, epidemiology, and biostatistics as applied to the etiology and treatment of heart, blood vessel, lung, and blood diseases, and sleep disorders.

### OVERVIEW

The NHLBI provides leadership for a national program of research in diseases of the heart, blood vessels, lung, and blood, in the uses and management of blood resources, and sleep disorders. The NHLBI plans, conducts, fosters, and supports an integrated and coordinated program of research.

Two divisions of the Institute are involved primarily in the BRTMUM program: the Division of Intramural Research (DIR) and the Division of Epidemiology and Clinical Applications (DECA). Research experiences available to students include the following:

- clinical research on the normal and abnormal pathophysiologic functioning of the cardiac, pulmonary, circulatory, and endocrine systems;
- basic research on normal and abnormal cellular behavior at the molecular level as well as in some areas of genetic studies; and
- training in epidemiology, clinical trials, and biostatistics relating to the prevalence, etiology, prevention, and treatment of heart, vascular, pulmonary, and blood diseases.



## TRAINING PROGRAM DESCRIPTION

The B RTPUM offers each participant the opportunity to work closely with leading intramural research scientists in NHLBI laboratories and offices. The program is designed to provide trainees with hands-on training in a research environment. These research training experiences will prepare students to continue their studies and advance their career in clinical and basic research.

## TYPES OF TRAINING ASSIGNMENTS

Assignments in the Intramural Research Division will provide trainees the opportunity to apply knowledge gained during their academic studies to actual hands-on experiences in a laboratory. The research activities for the training assignments may include: the mechanisms of gene regulation; retroviral-mediated gene transfer and gene therapy; the molecular basis of diseases on the alveolar structure of the lung and the design of new therapeutic modalities; the cellular and molecular events underlying ischemic heart diseases and myocardial hypertrophy; biochemical events associated with aspects of muscle and non-muscle contractile systems; the biochemistry and physiology of calcium channels; molecular and cellular processes for the conversion of metabolic energy into useful work; the molecular basis of transmembrane signaling; the pathophysiology of renal function at the cellular and molecular levels; the biochemistry of trace nutrients; enzyme kinetics, metabolic regulation, and protein chemistry; the cellular and molecular basis of toxicities induced by drugs and other foreign compounds; and molecular immunology and cytokines.

During assignments with DECA, trainees will be taught basic principles of epidemiology, including the prevalence of diseases in populations, risk factors for diseases, and potential for prevention. Examples of research activities include: lipid profiles associated with coronary heart disease in elderly populations; development of culturally valid psychosocial test instruments for examining relationships between health and behavior in minority populations; prevalence of and risk factors for coronary disease in American Indians; and determination of the efficacy and safety of low fat diets in children.

## ELIGIBILITY REQUIREMENTS

Students must meet the following criteria:

1) be juniors or seniors enrolled full-time in an accredited undergraduate institution; or graduate students enrolled full-time in an accredited academic institution; 2) have a major in biological, physical, behavioral, mathematical, engineering or statistical sciences; 3) have completed a minimum of 18 hours of academic training in science-related course work relevant to biomedical, behavioral or statistical research;



4) have a cumulative grade point average (GPA) of 3.3 or better; and 5) be U.S. citizens, permanent residents, noncitizen nationals of the United States, or resident aliens who will be eligible for U.S. citizenship within 4 years with proof of residency status.

Students who have participated in the NHLBI Minority Access to Research Careers (MARC) Summer Research Training Program, the NHLBI Minority Supplement Program for Undergraduate and Graduate Students, or the Minority Biomedical Research Support (MBRS) Program may apply if they meet the eligibility requirements.

Applicants will not be excluded from consideration or evaluation on the basis of race, color, religion, sex, disability, age, national origin, sexual orientation, political affiliation, or any other non-merit factor. The program is intended to provide training for students who are under-represented in the biomedical and behavioral research fields nationally.

## APPLICATION PROCESS

Completed applications will be accepted beginning October 1, and must be received no later than **December 31**.

To be considered for the program, all applicants must submit an application package that contains the following documents:

- Application Form  
(See ATTACHMENT I)
- Resumé  
(See ATTACHMENT II for sample format)
- Detailed Statement of Research Experience, Goals, and Interests  
(See ATTACHMENT III)
- At least two letters of recommendation from a faculty member in the science department who has taught the student where they are currently enrolled
- Official academic transcript in a sealed envelope from the academic institution
- Official certification of full-time enrollment, good academic standing, and current academic classification, i.e., junior, senior, 1st year, 2nd year or 3rd year graduate student



The application package and requests for information should be forwarded to the:

National Institutes of Health  
National Heart, Lung, and Blood Institute  
Office of Special Concerns  
31 Center Drive, Room 4A28, MSC 2490  
Bethesda, Maryland 20892-2490

Telephone: 301-496-1763  
FAX: 301-402-2322

Websites:  
[www.nhlbi.nih.gov/nhlbi/train/redbook/undbrtum.htm](http://www.nhlbi.nih.gov/nhlbi/train/redbook/undbrtum.htm)  
(for undergraduate students)

[www.nhlbi.nih.gov/nhlbi/train/redbook/gradbrtu.htm](http://www.nhlbi.nih.gov/nhlbi/train/redbook/gradbrtu.htm)  
(for graduate students)

## SELECTION PROCESS

Application packages will be reviewed by a panel of NHLBI scientists. Application packages forwarded after the deadline date or incomplete application packages will not be forwarded for consideration. Candidates will be selected for interviews based on their academic achievement, training, research goals and interests, and letters of recommendation.

The number of trainees selected for any one training period may vary due to the availability of funds and mentors.

Students who have been selected to be interviewed will be invited to Bethesda, Maryland in February or March to visit the NHLBI at the National Institutes of Health. Based on their research interests, students will be interviewed by a panel of scientists from the Division of Intramural Research and/or the Division of Epidemiology and Clinical Applications. The final selection of trainees will be made by the panel after the interviews. Notification of acceptance or nonacceptance into the program will be mailed by **March 31**.

## TRAINING ASSIGNMENT AND DURATION

Training will begin in **May** or **June** of the initial selection year. If circumstances prevent this start date, the mentor and trainee will agree upon an acceptable start date. All training sites are located in Bethesda, Maryland.

The trainee's appointment is a **one-time appointment of 12 to 24 months over a 2 year period beginning the summer of selection**. To satisfy the appointment, students are required to complete their training assignments in increments during consecutive academic years; for example, a minimum of 10 weeks during the summer and at least one academic break period during the year. An alternative is working for a full year, provided the trainee's academic institution approves and grants a leave of absence. The fellowship award must be activated the summer of selection into the program. Under special circumstances, an award may be deferred for up to one year from the date of notification of selection. After 1 year, the student must reapply for the training fellowship. The training must be completed within the 2 year training period. Students who work during their summer and winter breaks only, may work three consecutive summers to complete their training fellowship. An NHLBI mentor will be appointed for each trainee. The mentor is responsible for designing a training program plan tailored to the current scientific research of the program area and the needs of the trainee. The training plan must be approved by the assigned Laboratory/Branch Chief.



## TRAINING STIPENDS

Trainees will receive a **stipend that is prorated according to the time period the trainee is actually on-site**. The stipends will be prorated based on the scale below.

The initial stipend check will be issued at the end of the first month of training. To ensure timely receipt of stipends, trainees are encouraged to participate in the direct deposit program.

## LEAVE OF ABSENCE

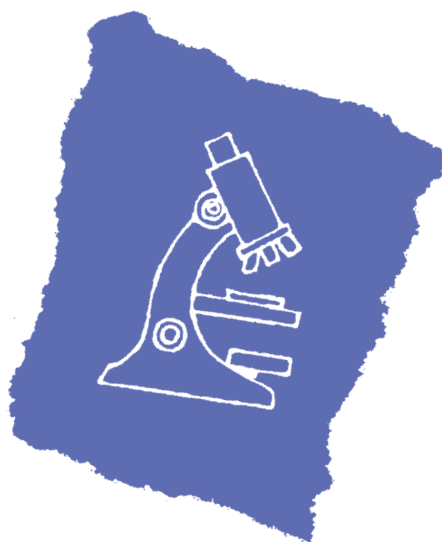
The B RTPUM trainees are not employees of the NHLBI, therefore, they do not earn annual and sick leave, but are excused on all Federal holidays. Mentors may, at their discretion, excuse trainees from their training assignments for reasonable causes such as ill health, emergencies, and personal business. Mentors may grant excused absences for a reasonable period, **not to exceed 13 days per training year**.

STIPENDS					
Undergraduate			Graduate		
Academic Year	Annual	Monthly	Academic Year	Annual	Monthly
Junior	\$16,900	\$1,408	First	\$17,950	\$1,495
Senior	\$17,400	\$1,450	Second	\$18,400	\$1,533
			Third	\$18,900	\$1,575
			Post Graduate	\$19,400	\$1,616

*Note: Stipends are based on the student's Academic classification beginning the next semester.*

## HEALTH BENEFITS

Trainees must be covered by health insurance in order to receive training at the NIH. Students without health insurance may obtain it through the Foundation for Advanced Education in the Sciences at the NIH. Trainees must work at least 32 hours per week and maintain the insurance for at least 3 months. In the event of injuries in the work place or an emergency, the NIH Occupational Medical Service is available.



## TRAVEL

During training assignments, trainees will be eligible for the following specific travel allowances:

- Interview Process:

Travel and lodging will be paid by the NHLBI for candidates invited for interviews.

- Training Period:

NHLBI will pay for two round-trip fares per year to Bethesda, Maryland, from the trainee's actual residence. The training period must be for a minimum of 4 weeks to qualify for a paid trip.

- Scientific Meetings:

Allowances for expenses to attend scientific meetings will be made at the discretion of the mentor and Laboratory/Branch Chief. Travel requests should be submitted in accordance with the established Laboratory/Branch procedures.

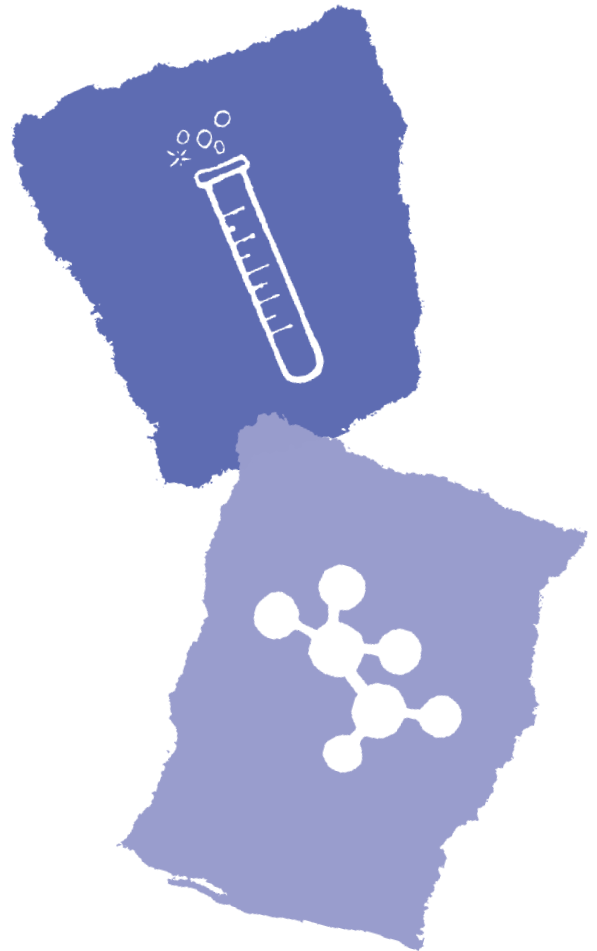
## TRAINING

During on-site training assignments and at the discretion of the mentor and Laboratory/Branch Chief, trainees may receive up to \$650 per year for government-sponsored training courses. The training must take place at the Foundation for Advanced Education in the Sciences at the NIH or local academic institutions. All training must be: 1) directly related to the purpose of the B RTPUM, and 2) approved by the trainee's mentor and Administrative Officer well in advance of the date of the training course. The government-sponsored training assistance is available only to those trainees who are currently working on-site at NIH and have activated their fellowship by working at least one summer break, winter break or for a semester within the calendar year.

## DEDUCTIONS

Since the NHLBI B RTPUM stipends are considered awards for training, the following restrictions are applied to the stipends:

- Social Security and Medicare payments are not deducted.
- Federal, state and local income taxes are not withheld. However, the stipends are subject to Federal and State taxes as well as local taxes, where applicable. Trainees should consult with the Internal Revenue Service and/or their tax representatives for instructions and additional information.
- Federal retirement is not applicable.



# ATTACHMENT I

## NATIONAL HEART, LUNG, AND BLOOD INSTITUTE

### BIOMEDICAL RESEARCH TRAINING PROGRAM FOR UNDERREPRESENTED MINORITIES

#### APPLICATION FORM

Note: Applications and required documents must be received by **December 31**.

Incomplete or late application packages will not be considered for the program.

Last Name: \_\_\_\_\_ First Name: \_\_\_\_\_ MI: \_\_\_\_\_

Permanent Address: \_\_\_\_\_ University/College Name and Address: \_\_\_\_\_

_____	_____
_____	_____
_____	_____
_____	_____

Telephone Number: \_\_\_\_\_ Telephone Number: \_\_\_\_\_

Citizenship: \_\_\_\_\_ FAX Number: \_\_\_\_\_

Sex: Male \_\_\_\_\_ Female \_\_\_\_\_ Major: \_\_\_\_\_

Race/Ethnic Origin: \_\_\_\_\_ Undergraduate: Jr \_\_\_\_\_ Sr \_\_\_\_\_

(Optional) Graduate: 1st yr. \_\_\_\_\_ 2nd yr. \_\_\_\_\_ 3rd yr. \_\_\_\_\_

Cumulative GPA: \_\_\_\_\_

Please send typed application and required documents to:

**National Institutes of Health  
National Heart, Lung, and Blood Institute  
Office of Special Concerns  
31 Center Drive, Room 4A28, MSC 2490  
Bethesda, Maryland 20892-2490**

**Telephone Number: 301-496-1763  
Fax Number: 301-402-2322**

#### APPLICATION CHECKLIST

1. Application Form \_\_\_\_\_
2. Resumé \_\_\_\_\_
3. Statement of Research Experience, Goals, and Interests \_\_\_\_\_
4. Letters of Recommendation (2) \_\_\_\_\_
5. Official Academic Transcript \_\_\_\_\_
6. Official Certification of Full-time Enrollment, Good Academic Standing, and Current Academic Classification \_\_\_\_\_

The Biomedical Research Training Program for Underrepresented Minorities (BRTMUM) is authorized by the Public Health Service Act as amended by the 1993 NIH Revitalization Act, which authorizes the National Heart, Lung, and Blood Institute to conduct appropriate intramural training and education programs, including continuing education, and laboratory and clinical research training programs. The BRTMUM is implemented by 42 CFR, Part 61, Subpart A, for fellowships at the National Institutes of Health for training in the prevention, diagnosis and

treatment of diseases of public health significance, including heart, lung, and blood diseases. The primary use of the information provided on this form will be to determine your eligibility for this program and for statistical tracking purposes. Disclosures will be made to Institute intramural and extramural staff who have a need to know in order to determine your eligibility to participate in the program. Completing this form is voluntary, however, failure to do so may result in not being considered for selection.



## ATTACHMENT II

NATIONAL HEART, LUNG, AND BLOOD INSTITUTE

BIOMEDICAL RESEARCH TRAINING PROGRAM FOR UNDERREPRESENTED MINORITIES

### SAMPLE RESUMÉ FORMAT

Name:

Home Address:

School Address:

Home Telephone Number:

School Telephone Number:

Date & Place of Birth:

Citizenship:

Education:

Brief Chronology of Employment:

Description of Scientific Experience:

Membership in Societies/Professional Organizations:

Honors, Awards, & Other Special Recognition:

*Note: Resumé should be neatly typed and include the items identified above.*

## ATTACHMENT III

STATEMENT OF RESEARCH EXPERIENCE, GOALS, AND INTERESTS

*(Maximum of two pages, neatly typed)*

Discrimination Prohibited: Under provisions of applicable public laws enacted by Congress since 1964, no person in the United States shall, on the grounds of race, color, national origin, handicap, or age, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity (or, on the basis of sex, with respect to any education program or activity) receiving Federal financial assistance. In addition, Executive Order 11141 prohibits discrimination on the basis of age by contractors and subcontractors in the performance of Federal contracts, Executive Order 11246 states that no federally funded contractor may discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin and Executive Order 13087 prohibits discrimination based on sexual orientation. Therefore, the National Heart, Lung, and Blood Institute must be operated in compliance with these laws and Executive Orders.



For more information, please contact:

Office of Special Concerns  
National Heart, Lung, and Blood Institute  
31 Center Drive, Room 4A28, MSC 2490  
Bethesda, MD 20892-2490  
301-496-1763

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Public Health Service  
National Institutes of Health  
National Heart, Lung, and Blood Institute

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